

Claims

What is claimed:

1. A method of stripping cured paint from plastic, aluminum, brass, magnesium, galvanized steel, zinc die cast, and non-ferrous metal substrates, said method comprising:
 - a) adding a stripping composition to a strip tank, said stripping composition consisting of a mixture of, not limited to, two synthetic detergent surface active agents, referenced in this invention as surfactants low in volatile organic compounds, specifically containing less than 50-percent by total weight or volume of any volatile organic compounds, selected from the group consisting; synthetic surfactants, non-ionic surfactants, anionic surfactants, cationic surfactants, amphoteric surfactants, acetate based surfactants, acetylene based, surfactants, fluorosurfactants, solvent based surfactants, phosphate ester surfactants, acid pH based surfactants, alkaline pH based surfactants, neutral pH surfactants, sulfonic acid surfactants, phosphoric acid surfactants, fatty acid based surfactants, inorganic acid based surfactants, carboxylate based surfactants, alkylate based surfactants, alcohol based surfactants, nonylphenol surfactants, oxide-based surfactants, sulfur based surfactants, alkylphenol containing surfactants, ethoxylated surfactants, sulphonated surfactants, amine based surfactants, amide surfactants, glycol based surfactants and quaternary surfactants and surfactant blends thereof, comprising 51% to 100% of the total weight or volume of the composition, with the remaining 0.5% to 49% balance consisting of additives selected by the group consisting; water, organic solvents, alcohols, aliphatic solvents, polar solvents, non-polar solvents, naphtha, oxygenated solvents, chlorinated solvents, acetones, ketones,

acetates, terpene solvents, esters, acetylene solvents, glycols, ethers, propionate solvents, carbonates, aromatic solvents, kerosene, fatty acid based solvents, vegetable based solvents, acids, inorganic acids, organic acids, fatty acids, lactic acids, glycolic acids, alkaline hydroxides, alkaline silicates, phosphates, sulfates, nitrates, alkaline salts, acid salts, ethanol amines, peroxides, oxidizers, rust inhibitors, chelators, defoamers, surfactants and mixtures thereof;

- b) immersing said cured painted substrate in said strip tank containing said stripping composition; and
 - c) heating said stripping composition in a range of 150F to 350F degrees for approximately 1-3 hours, wherein cured paint is removed from said substrate.
- 2. The method of claim 1, wherein said first synthetic detergent surface active agent, referenced in this invention as surfactant low in volatile organic compounds, specifically containing less than 50-percent by total weight or volume of any volatile organic compounds is in the range of 0.5-99.5 percent by weight.
- 3. The method of claim 1, wherein said second synthetic detergent surface active agent, referenced in this invention as surfactant low in volatile organic compounds, specifically containing less than 50-percent by total weight or volume of any volatile organic compounds is in the range of 0.5-99.5 percent by weight.
- 4. The method of claim 2, wherein said first synthetic detergent surface active agent, referenced in this invention as surfactant low in volatile organic compounds, specifically containing less than 50-percent by total weight or volume of any volatile organic compounds is in the range of 1-51 percent by weight.

5. The method of claim 3, wherein said second synthetic detergent surface active agent, referenced in this invention as surfactant low in volatile organic compounds, specifically containing less than 50-percent by total weight or volume of any volatile organic compounds is in the range of 1-51 percent by weight.
6. The method of claim 1, wherein said additives is in the range of 0.5-49 percent by weight or volume.
7. The method of claim 2, wherein said preferred synthetic detergent surface active agent, referenced in this invention as surfactant low in volatile organic compounds, specifically containing less than 50-percent by total weight or volume of any volatile organic compounds is dodecylbenzene sulfonic acid or a synthetic detergent surface active agent, referenced in this invention as surfactant low in volatile organic compounds, specifically containing less than 50-percent by total weight or volume of any volatile organic compounds selected from the group consisting; synthetic surfactants, non-ionic surfactants, anionic surfactants, cationic surfactants, amphoteric surfactants, acetate based surfactants, acetylene based surfactants, fluorosurfactants, solvent based surfactants, phosphate ester surfactants, acid pH based surfactants, alkaline pH based surfactants, neutral pH surfactants, sulfonic acid surfactants, phosphoric acid surfactants, fatty acid based surfactants, inorganic acid based surfactants, carboxylate based surfactants, alkylate based surfactants, alcohol based surfactants, nonylphenol surfactants, oxide-based surfactants, sulfur based surfactants, alkylphenol containing surfactants, ethoxylated surfactants, sulphonate based surfactants, amine based surfactants, amide surfactants, glycol based surfactants and quaternary surfactants and surfactant mixtures thereof.

8. The method of claim 3, wherein said preferred second synthetic detergent surface active agent, referenced in this invention as surfactant low in volatile organic compounds, specifically containing less than 50-percent by total weight or volume of any volatile organic compounds is tridecylbenzene sulfonic acid or a synthetic detergent surface active agent, referenced in this invention as surfactant low in volatile organic compounds, specifically containing less than 50-percent by total weight or volume of any volatile organic compounds selected from the group consisting; synthetic surfactants, non-ionic surfactants, anionic surfactants, cationic surfactants, amphoteric surfactants, acetate based surfactants, acetylene based surfactants, fluorosurfactants, solvent based surfactants, phosphate ester surfactants, acid pH based surfactants, alkaline pH based surfactants, neutral pH surfactants, sulfonic acid surfactants, phosphoric acid surfactants, fatty acid based surfactants, inorganic acid based surfactants, carboxylate based surfactants, alkylate based surfactants, alcohol based surfactants, nonylphenol surfactants, oxide-based surfactants, sulfur based surfactants, alkylphenol containing surfactants, ethoxylated surfactants, sulphonate based surfactants, amine based surfactants, amide surfactants, glycol based surfactants and quaternary surfactants and surfactant blends thereof.

9. The method of claim 6, wherein said preferred additive is glycolic acid or an additive selected from the group consisting; water, organic solvents, alcohols, aliphatic solvents, polar solvents, non-polar solvents, naphtha, oxygenated solvents, chlorinated solvents, acetones, ketones, acetates, terpene solvents, esters, acetylene solvents, glycols, ethers, propionate solvents, carbonates, aromatic solvents, kerosene, fatty acid based solvents, vegetable based solvents, acids, inorganic acids, organic acids, fatty acids, lactic acids, glycolic acids, alkaline hydroxides, alkaline silicates, phosphates, sulfates, nitrates, alkaline salts, acid salts, ethanol amines, peroxides, oxidizers, rust inhibitors, chelators, defoamers, surfactants and mixtures thereof; in the range of 0.5-49 percent by weight or volume.